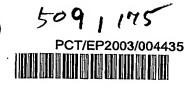
PATENT COOPERATION TREATY



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference B01/0906PC	FOR FURTHER ACTIO		ication of Transmittal of International Examination Report (Form PCT/IPEA/416)				
International application No. PCT/EP2003/004435	International filing date (da. 29 April 2003 (29.	date (day/month/year) Priority date (day/month/year)					
International Patent Classification (IPC) or C07C 7/08			30 April 2002 (30.04.2002)				
Applicant	BASF AKTIENGESE	LLSCHAFT					
2. This REPORT consists of a total of This report is also accompate been amended and are the least of the consists of a total of the consists of the consists of the consists of a total of the consists of the c	upplicant according to Article : 4 sheets, including to Article :	ding this cover s s of the descript ts containing restructions under	tion, claims and/or drawings which have				
3. This report contains indications relating to the following items: I Basis of the report							
IV Lack of unity of in	III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV Lack of unity of invention						
V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application							
VIII Certain observatio	is on the international applicat						
Date of submission of the demand 24 September 2003 (24.09.2003)		Date of completion of this report					
Name and mailing address of the IPBA/EP		rized officer	vember 2003 (12.11.2003)				
Facsimile No.	Telepi	none No.					

Form PCT/IPEA/409 (cover sheet) (January 1994)

Translation

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/004435

I. Basis of the report						
1. This report	rt has been drawn cle 14 are referred to	on the basis of (Replacement shee in this report as "originally filed"	ts which have been furnished to the receiving Office in response to an invitation and are not annexed to the report since they do not contain amendments.):			
	•	l application as originally filed.	•			
\boxtimes	the description,	pages1-13	_, as originally filed,			
_		pages	_, filed with the demand,			
		pages	_, filed with the letter of,			
		pages	_, filed with the letter of			
\bowtie	the claims,	Nos. 1-9	_ , as originally filed,			
			, as amended under Article 19,			
		Nos	_, filed with the demand,			
		Nos	_ , filed with the letter of ,			
		Nos.	, filed with the letter of			
\boxtimes	the drawings,	sheets/fig1/2-2/2	_ , as originally filed,			
		sheets/fig	_ , filed with the demand,			
		sheets/fig	, filed with the letter of,			
		sheets/fig	, filed with the letter of			
2. The amend	ments have resulte	ed in the cancellation of:				
	the description,	pages				
	the claims,	Nos				
	the drawings,	sheets/fig	•			
3. This to go	report has been es beyond the disclo	stablished as if (some of) the am soure as filed, as indicated in the	endments had not been made, since they have been considered Supplemental Box (Rule 70.2(c)).			
4. Additional	observations, if ne	cessary:				
			İ			



International application No. PCT/EP 03/04435

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.	Statement			
	Novelty (N)	Claims	1-9	YES
	·	Claims		NO
	Inventive step (IS)	Claims	1-9	YES
		Claims		NO
	Industrial applicability (IA)	Claims	1-9	YES
	•	Claims		NO

2. Citations and explanations

D1: US-A-4 555 312

D2: EP-A-0 079 679

The present application concerns a continuous method for obtaining butenes from a C4 fraction.

Document D2 is the closest prior art document and differs from the subject matter of the present application in that the features of the characterizing part of claim 1 are not disclosed, that is the fact that a partial stream is withdrawn from the degassing zone of a separation stage situated downstream of the inlet of the bottom stream coming from the washing zone, and the partial stream is heated and/or evaporated by indirect heat exchange with the hot bottom stream flowing out of the degassing zone and returned to the degassing zone in the same separation stage or upstream thereof.

The technical problem is therefore considered that of providing an improved method for obtaining butenes from a C4 fraction. The solution is set out in claim 1. A person skilled in the art proceeding from the closest prior art would not have been able to derive that the features "a partial stream is withdrawn from the degassing zone of a

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/04435

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separation stage situated downstream of the inlet of the bottom stream coming from the washing zone, and the partial stream is heated and/or evaporated by indirect heat exchange with the hot bottom stream flowing out of the degassing zone and returned to the degassing zone in the same separation stage or upstream thereof" would result in the energy reductions shown in the table on page 13 when a particular theoretical separation stage is selected.

The subject matter of claims 1-9 therefore meets the requirements of PCT Article 33(2) and (3).

The closest prior art document, document EP-A-0 079 679, should be mentioned in the application.